THE SENTINEL
OFFICIAL SAFETY NEWSLETTER OF CIVIL AIR PATROL

Watch Your Glass!

Technology is everywhere in our modern world. However, learning to use any technical advancement product correctly is very important. It is not only important to know what a product's capabilities are, but also how it can be effective in the application for which it is being used. For example, the airplane is a wonderful technical advancement, but the modern aircraft didn't come about without trials and tribulations. Learning how to operate the airplane effectively and safely has made it safer and more efficient over the years.

The same can be said for the new generation of technically advanced aircraft commonly termed "Glass Cockpit".

How we use and learn all of the capabilities afforded by the glass cockpit technology will determine how safe we are as pilots.

I will touch on a new aircraft technology entering the Civil Air Patrol fleet by understanding its training methods as well as the operation of this new equipment.

The additional learning curve of new avionics adds to the initial workload but there are many advantages to this technology. With the new "Glass" technology the pilot moves from basic, physical stick and rudder skills, to a more mental approach. Pilots who successfully adapt will enjoy a gain of situational awareness. Those who don't will find challenge, complexity, and possibly some unsafe situations. It should be noted that while in training and gaining experience in these new technologies, we should not let our stick and rudder skills diminish. There is always the possibility of equipment failure and the pilot must always fly the aircraft. This is a challenge for new pilots in training using the new technically advanced aircraft. They may not learn the basic stick and rudder skills which are so fundamental to safe flying. What is the real secret to learning this new technology? Use it safe and maximize its full potential. Any professional airline or corporate pilot who completes their training process, will tell you that good initial training in the equipment followed by a series of "consistent" recurrent training is essential to operating the equipment properly and effectively. As you learn this equipment, you may process so much information as to cause mental overload. It is imperative that you integrate this new experience into your "stick and rudder" skills. Time and practice will help you hone these skills to become safer and more effective

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when using the glass cockpit. After your initial training in the CAP glass cockpit aircraft, you should continue your training by using an experienced instructor until both you and he feel comfortable with your basic capabilities. There are companies that provide CD-ROM's for your computer to enhance your training and answer questions that arise as you become more technologically competent. Then as you further your studies of the new technology, you will continually find new challenges. The U.S. government and the U.S. Navy have adopted CD-ROM training programs for use in various programs of education and currency. (i.e. for the Garmin 530 units installed in the Navy's E-2's). In the end, the initial training and an annual form 5 will not keep you proficient enough to use this equipment as intended. You will maintain currency as described in the regulations, however, you will not be proficient. Continued training and other sources of learning devices such as CD-ROMS should be utilized. According to the AOPA Air Safety Foundation, system training and basic avionics should be done via computer. Many pilots do not find print media helpful for the advanced avionics systems. Interaction is required to learn the systems effectively. The CAP safety culture is to develop a more professional safety management process. We suggest achieving that by using a professional approach to safer flying in our new technically advanced aircraft. For more information on this safety matter, go to the AOPA site at www.aopa.org/asf/publications/topics.

LM

It's Hot All Over!

Nationwide, temperatures are hitting the 100 degree mark. As such, it is important to respect the heat and sun. Heatstroke occurs when the body is incapable of regulating its own temperature and the body temp rises much higher than normal. Symptoms of progressing heatstroke include unconsciousness for longer than a few seconds, convulsion or seizure, signs of moderate to severe difficulty in breathing, confusion, anxiety or severe restlessness and a fast heart rate. Other symptoms include hot, dry, flushed skin with no sweating or with excessive sweating, severe vomiting and diarrhea. Heatstroke is a medical emergency and after calling a 911 follow these first aid steps:

Move the person into a cool place out of the sun.

Remove unnecessary clothing and place the person on their side to expose as much skin as possible to the air.

Cool the person's body by sponging or spraying "cool" water and fan the person.

Apply ice packs to the groin, neck, and armpits.

Do not put the person in an ice bath!

Check their temperature frequently and try to reduce it below 102 degrees.

Some prevention of heat/sunstroke is to drink plenty of water, cover exposed skin and reduce exposure to the sun. Minimize or cancel out door activity. Rest often and did I mention drink plenty of water. **LM**

Safety is an educational process.